

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
Housing - Federal Housing Commissioner

Series and Series Number:  
MATERIALS RELEASE NO: 1288a  
(Supersedes issue dated  
July 7, 1997)

TO: DIRECTORS, SINGLE FAMILY HOCs  
DIRECTORS, MULTIFAMILY HUBs

ISSUE DATE

November 3, 2004

REVIEW DATE

November 3, 2007

SUBJECT: 1. Product Ortecrete Underlayment System

2. Name and address  
of Manufacturer Maxxon Corporation  
920 Hamel Road  
P. O. Box 253  
Hamel, MN 55340-9610

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Interior floor underlayment

DESCRIPTION:

“Ortecrete Underlayment System” is a non-structural material for use on subfloors covered with carpet, tile or other floor coverings. The “Ortecrete Underlayment System” is a mixture of gypsum, Portland cement, sand, and water.

PHYSICAL PROPERTIES:

	<u>ORTECRETE</u>
Density	110 pcf min.
Compressive strength	Class A – 1250 psi min. Class B – 1500 psi min. Class C – 2000 psi min.

Test cubes shall be formed for each installation, and tested in compliance with ASTM C 472.

### INSTALLATION:

The “Ortcrete Underlayment Systems” shall be installed in strict compliance with the manufacturer’s printed specifications. Mixing and pumping equipment shall be approved by Maxxon Corporation.

#### Subfloor

1. The subfloor shall be structurally sound, broom clean, and free of mud, oil, grease, or other contaminants. To prevent leakage, all cracks and voids shall be filled with a quick setting topping or caulking compound approved by Maxxon Corporation.

#### Finished Flooring

2. The finished flooring shall not be installed until the specified mix has cured as prescribed in the installation specification. During this period, the dwelling should maintain a minimum temperature of 55°F with adequate ventilation.

#### Priming

3. All wood subflooring shall be primed with Maxxon Corporation primer. On new wood, one coat of latex primer shall be sprayed on at a rate of 1 gallon per 300 sq. ft. over the entire surface. On new or old concrete subfloors, a sealer is not necessary; however, all concrete subfloors shall be primed with Maxxon Corporation primer.

#### Patching

4. Holes or minor surface irregularities shall be patched using a latex patching material, approved by Maxxon Corporation.

### MATERIALS:

All materials shall be approved by Maxxon Corporation.

1. “Ortcrete”  
  
“Ortcrete” shall consist of calcined gypsum containing not less than 90% by weight of calcium sulfate hemihydrate, as specified in ASTM C 28 for Gypsum Plasters, and up to 25% Portland Cement Type 5 as specified in ASTM C 150. Minute amounts of retarder can be added to ensure adequate workability.

2. Sand

Washed mason, mortar or plaster sand (1/8" sieve size or less) shall be used in accordance with Maxxon Corporation sand specifications.

3. Water

The water shall be clean, free of oil, acid, alkali, vegetable matter, or impurities that affect the setting of gypsum.

MIXING INSTRUCTIONS:

The finished Ortecrete weighs approximately 9.5 to 9.75 pounds per square foot per inch of thickness. Ortecrete is available in three different mixture proportions:

The mixture proportions are:

Class A: 2.1 Mix Design Ortecrete – for multifamily housing (not for pours of 1/2" or less in depth):  
80 pounds of Ortecrete (one bag)  
2.1 cubic feet of sand  
4 to 5 gallons of water.

Class B: 1.8 Mix Design Ortecrete – for single family housing (not for use on pours of 1/2" or less in depth):  
80 pounds of Ortecrete (one bag)  
1.8 cubic feet of sand  
4 to 5 gallons of water

Class C: 1.4 Mix Design Ortecrete – for renovation and commercial (must be used on all pours 1/2" or less):  
80 pounds Ortecrete (one bag)  
1.4 cubic feet of sand  
4 to 5 gallons of water.

LIMITATIONS:

1. Underlayment is for interior use only.
2. Subflooring shall be structurally adequate to withstand the design live loads with a deflection limitation of  $L/360$ .
3. Underlayment requires a finish floor covering to prevent abrasion and to protect it from moisture.
4. Underlayment thickness shall not be less than the following:

<u>Subfloor thickness, min.</u>	<u>Truss, beam or joist spacing</u>	<u>Minimum Thickness</u>
19/32"	16" to 19" o.c.	3/4"
19/32"	Over 19" to 24" o.c.	1"

5. Underlayment shall not be used directly over metal door jambs or metal decks.

STORAGE AND HANDLING:

All materials shall be delivered in their original unopened packages, and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall not be used.

WARRANTY:

Maxxon Corporation warrants this product against defects due the materials or workmanship for a period of 5 years. Maxxon corporation, shall make allowance toward restoration, repair or replacement of the defective material. The "Ortcrete Underlayment System" covered by this Materials Release (MR) shall be installed by Maxxon Corporation, or by a company whose personnel have been trained by Maxxon Corporation.

Maxxon Corporation shall not be responsible for any defect or damage due to misuse or damage resulting from fire or natural catastrophes such as floods or tornados.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this MR commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.

2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the FHA Standards, Office of Manufactured Housing Programs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

MANUFACTURING PLANTS:

The product covered under this MR will be produced in the following plant:

Georgia-Pacific Corporation  
2127 Highway 77  
Blue Rapids, KS 66411

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S. Department of Housing and Urban Development  
FHA Standards, Office of Manufactured Housing Programs  
451 7<sup>th</sup> Street, SW, Room 9168  
Washington, DC 20410-8000

Appropriate User Fee shall be sent to:

U. S. Department of Housing and Urban Development  
Miscellaneous Income - Technical Suitability of Products Fees  
Bank of America  
P. O. Box 198762  
Atlanta, GA 30384-8762

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be cancelled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a notice, of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be cancelled. No refund of fees will be made on a cancelled document.

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This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.  
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